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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,682	10/31/2003	Greg Franke	200315010-1	3560

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EXAMINER

BROUSSARD, COREY M

ART UNIT PAPER NUMBER

2835

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,682

Applicant(s)

FRANKE ET AL.

Examiner

Corey M. Broussard

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,18 and 20 is/are rejected.
- 7) ☒ Claim(s) 2,3,8-17 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites the limitation "the second spring" in line 2. Claim 13 recites the limitation "third protrusion" in line 2. Claim 14 recites the limitation "fourth protrusion". There is insufficient antecedent basis for these limitations in the claim.

### ***Claim Rejections - 35 USC § 102***

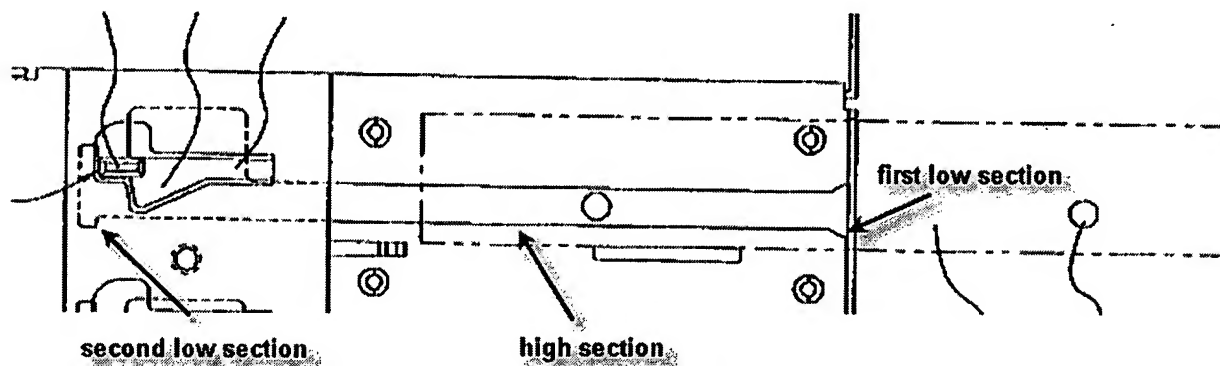
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4-6, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (PN 6,373,694). With respect to claim 1, Chang teaches a media drive cage, comprising: a first slot (42) defined by top and bottom bearing surfaces and

having an opening and a termination (see Fig. 3), configured to receive a first protrusion (62) of a media drive (6), and defining a plane of movement for the first protrusion as it travels along a path through the first slot from the opening to the termination; and a first spring (54) disposed adjacent to the termination and operable to engage the first protrusion before it reaches the termination (see Fig. 5); wherein the first slot comprises first and second low sections at the opening and the termination, respectively, and a high section between the low sections (see Fig. 4 below),



the bottom bearing surface in the low sections defining a first height and the bottom bearing surface in the high section defining a second height higher than the first height.

5. With respect to claim 4, Chang teaches wherein the protrusion (62) comprises a screw head (it is apparent from Fig. 4 and 5 that 62 is a screw head of the hard disk 6, it is also well known and old in the electronic art to use screw heads for hard drive mounting).

6. With respect to claim 5, Chang teaches wherein a resilient finger (544), disposed at the termination, for engaging the first protrusion (see Fig. 5, col 3, 18-23).

7. With respect to claim 6, Chang teaches wherein the resilient finger (544) is disposed transversely across at least part of the path (see Fig. 4, clearly showing that the finger is disposed transversely from the path).
8. With respect to claim 18, Chang teaches a means for latching the media drive (6) in the media drive cage (4, block member 5 and grooves 42 are a means for latching the media drive).
9. With respect to claim 20, Chang teaches wherein the media drive cage (4) comprises more than one identical media drive bays (see Fig. 2-5, col 2, 4-10, 56-61).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (PN 6,373,694). Chang teaches the resilient finger (544) but lacks explicit teaching that said finger is formed integrally with the material of the media drive cage. It has been held that the use of a one-piece construction instead of the structure disclosed in the prior art would be merely a matter of obvious engineering choice. In re Larson, 144 USPQ 347, (CCPA 1965). It would have been obvious to use the well known method of welding to make the block 5 and member 54 integral with the drive cage 4 for the benefit of a robust device having a longer operational lifetime.

***Response to Arguments***

12. Applicant's arguments with respect to claims 1, 4-7, 18, and 20 have been considered but are moot in view of the new grounds of rejection.

***Allowable Subject Matter***

13. Claims 2, 3, 8-17, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action, in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: The allowability resides in the overall structure of the device as recited in dependant apparatus claim 2 and at least in part, because claim 2 recites: "the first engagement member is biased toward the slot and is operable to deflect away from the slot in a direction orthogonal to the plane of movement in response to force applied by the first protrusion".

The aforementioned limitations in combination with all remaining limitations of claims 1 and 2 are believed to render said claim 2 and all claims currently dependent therefrom patentable over the art of record.

The closest reference to the present invention is believed to be Chang (PN 6,373,694).

Chang teaches wherein the engagement member is biased toward the slot, but did not disclose "the first engagement member is biased toward the slot and is operable to deflect away from the slot in a direction orthogonal to the plane of movement in response to force applied by the first protrusion".

15. The allowability resides in the overall structure of the device as recited in dependant apparatus claim 8 and at least in part, because claim 8 recites: "a second spring disposed adjacent to the opening and operable to engage the first protrusion as it enters the first slot.".

The aforementioned limitations in combination with all remaining limitations of claims 1 and 8 are believed to render said claim 8 and all claims currently dependent therefrom patentable over the art of record.

The closest reference to the present invention is believed to be Chang (PN 6,373,694).

Chang teaches a first spring adjacent the slot, but did not disclose "a second spring disposed adjacent to the opening and operable to engage the first protrusion as it enters the first slot.".

16. The allowability resides in the overall structure of the device as recited in dependant apparatus claim 9 and at least in part, because claim 9 recites: "a second spring comprising second and third engagement members, disposed at least partially in the path, for engaging the first protrusion and a second protrusion of the media drive; and the second and third engagement members are biased toward the slot and are

operable to deflect away from the slot in a direction orthogonal to the plane of movement in response to force applied by the first and second protrusions.”.

The aforementioned limitations in combination with all remaining limitations of claims 1, 5, and 9 are believed to render said claim 9 and all claims currently dependent therefrom patentable over the art of record.

The closest reference to the present invention is believed to be Chang (PN 6,373,694).

Chang teaches a first spring adjacent the slot, but did not disclose “a second spring comprising second and third engagement members, disposed at least partially in the path, for engaging the first protrusion and a second protrusion of the media drive; and the second and third engagement members are biased toward the slot and are operable to deflect away from the slot in a direction orthogonal to the plane of movement in response to force applied by the first and second protrusions.”.

17. The allowability resides in the overall structure of the device as recited in dependant apparatus claim 13 and at least in part, because claim 13 recites: “a resilient latch disposed adjacent to the second slot, operable to engage the third protrusion when the first protrusion engages the termination, and operable to retain the media drive in the media drive cage when so engaged.”.

The aforementioned limitations in combination with all remaining limitations of claims 1 and 13 are believed to render said claim 13 and all claims currently dependent therefrom patentable over the art of record.



The closest reference to the present invention is believed to be Chang (PN 6,373,694).

Chang teaches wherein a resilient latch is disposed adjacent to the first slot, but did not disclose "a resilient latch disposed adjacent to the second slot, operable to engage the third protrusion when the first protrusion engages the termination, and operable to retain the media drive in the media drive cage when so engaged."

18. The allowability resides in the overall structure of the device as recited in dependant apparatus claim 19 and at least in part, because claim 19 recites: "the profile of the media drive when the media drive is fully inserted in the cage such that air may flow thorough the high section into or out of the cage, unimpeded by the media drive."

The aforementioned limitations in combination with all remaining limitations of claims 1 and 19 are believed to render said claim 19 and all claims currently dependent therefrom patentable over the art of record.

The closest reference to the present invention is believed to be Chang (PN 6,373,694).

Chang teaches wherein a resilient latch is disposed adjacent to the first slot, but did not disclose "the profile of the media drive when the media drive is fully inserted in the cage such that air may flow thorough the high section into or out of the cage, unimpeded by the media drive."

19. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2835

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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